

PATENT SPECIFICATION

682,714



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COMPLETE SPECIFICATION

Improvements in or relating to Measuring Tapes and Mounts therefor

We, WILHELM STAMM and MAX STAMM, both of Swiss Nationality, trading as STAMM & COMPANY, of Eglisau, Switzerland, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

10 The present invention relates to improvements in measuring-tapes and mounts therefore, which tapes are made of oil cloth or other similar supple material and used in households for 15 tailoring and other purposes.

Such measuring tapes usually are wound about the four fingers of the user's one hand for putting it away when not used. Such conventional procedure results in a loose and comparatively voluminous coil or roll which cannot be conveniently or readily put or stored away. If, on the other hand, the tape is wound spiral-like onto a core, the tape material 25 will quickly deteriorate. Winding the tape as indicated, naturally will not prevent the loose coil or roll from unwinding which is particularly undesirable, as the tape then may be readily 30 damaged.

Measuring appliances are known, e.g. in the building art, which comprise a supple measuring tape and a reel, which two parts, however, are rigidly interconnected so that the tape cannot be used freely by itself. The field of application of such known tapes thus is limited.

Measuring means have been suggested in which an elongated frame has a slot therethrough in which is pivotally disposed a reel for a tape, the tape being coupled at its inner end with an open transverse slot in the periphery of the reel, engagement of the tape end with the slot being effected in a lateral direction. In this arrangement when the tape is wound on the reel it has hardly any protection afforded to it by the carrier

nor does the latter give any assurance of a perfect guiding of the tape as it is being wound.

The object of the present invention is to provide a measuring means including a flexible non-metallic tape in which the tape is conveniently and safely stored when not in use and in which winding and unwinding is positively controlled.

According to the present invention a measuring means consists of a generally cylindrical casing cut away at least one side and at the periphery thereof over approximately 90° extent, a winding reel, journaled on a central, axially disposed pin secured within said casing, having transversely thereof a slot open at the reel periphery, a flexible non-metallic measuring tape having at one end coupling means capable of being introduced laterally into said slot and retained therein, and an eccentrically disposed handle extending in an axial direction from said reel to enable the reel to be rotated within the casing.

Preferably the slot is formed by two oppositely disposed co-extensive surfaces which terminate by defining at the inner end of the slot an enlarged portion serving for the reception of said coupling means so as to prevent withdrawal of the tape longitudinally of the slot.

The handle may be slidably disposed within a bore in the reel, said bore being counter-bored to accommodate an enlarged-diameter portion of said handle whereby the handle may be caused to adopt operative and inoperative positions, the casing at one side having a central aperture to allow said handle to extend into the operative position and to be turned when so extended.

The measuring tape, when not in use, therefore may be wound onto the said reel, thus being protected against exterior mechanical forces and influences, and may be safely stored away for future use. The entire arrangement requires compara-

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tively little space, and the supple measuring tape may be readily detached from the casing to be used entirely independent therefrom, which is desirable in particular for tailoring and the like work.

One form of the present invention is shown in the accompanying drawing, in which:—

Fig. 1 is a side view of the reel and 10 the wound measuring tape,

Fig. 2 is a section on the line 11—11 in Fig. 1, and

Figs. 3 and 4 show the measuring tape (cut-away) in two views.

15 A circular casing part 1 has a cut-away portion extending over a quarter of its circumference, and a central bearing stud 2 on which the reel 3 is rotatably mounted. The reel 3 comprises on its 20 circular circumference a transverse coupling slot 5 which has an enlarged inner end and serves for accommodating the coupling ferrule 6 provided at one end of the measuring tape 4. The coupling ferrule 6 in the present case is made of a bent piece of sheet metal, and is secured to the respective end of the tape 4, its 25 cross-section corresponding to that of the coupling slot 5. The tape 4 thus may be so connected to the reel 3, by inserting its coupling ferrule 6 into the said slot laterally of reel 3, that it may be firmly wound onto the reel 3. When it is desired 30 to separate the tape 4 from the reel 3, the coupling ferrule 6 of the tape simply is withdrawn from the slot 5 of the reel 3. In the reel 3 a bore 31 is provided, which is eccentric with respect to the bearing stud 2, and an operating handle 40 in form of a crank-arm or handle 7 is axially movable within limits in the said bore. The shoulder of the stepped bore of reel 3 serves as abutment for a guide collar 8 of crankarm 7 for the purpose 45 of limiting its position of projection (Fig. 2). For the purpose of winding the tape 4 onto the reel 3, the latter may be conveniently rotated on the mount 1 by means of the projected crankarm 7. After 50 the tape 4 has been wound up, and also when the tape has been removed from the reel 3, the crankarm may be pushed back to its inside position. In order to protect the wound tape 4 against outside mechanical influences as fully as possible, and 55 to prevent the same from dropping out or from being loosened unintentionally from the reel 3, the casing part 1 is provided with a closure-ring 9. The latter 60 is cut away to correspond with casing part 1 so that the reel 3 in this range is accessible from the outside and also has a

central aperture which facilitates the use of the crankarm or handle 7.

The measuring tape 4 is reinforced at 65 its other end by means of a terminal member 10 which may be made of sheet metal, and a holder 11 is secured to the said member 10. The latter limits the winding operation in that it abuts against 70 the casing ring 9, as shown in Fig. 1. The holder 11 thus is always ready to be seized for the purpose of unwinding the tape 4 from the reel 3. The tape 4 is removed from the latter by correspondingly displacing the coupling ferrule 6 75 axially in the slot 5, after the tape has been unwound from the reel 3 by simply pulling the tape 4 off the reel 3.

What we claim is:—

1. A measuring means consisting of a generally cylindrical casing cut away at least one side and at the periphery thereof of over approximately 90° extent, a winding reel, journalled on a central, axially disposed pin secured within said casing having transversely thereof a slot open at the reel periphery, a flexible non-metallic measuring tape having at one end coupling means capable of being 90 introduced laterally into said slot and retained therein, and an eccentrically disposed handle extending in an axial direction from said reel to enable the reel to be rotated within the casing. 95

2. A measuring means as claimed in claim 1, in which said slot is formed by two oppositely disposed co-extensive surfaces which terminate by defining at the inner end of the slot an enlarged portion 100 serving for the reception of said coupling means so as to prevent withdrawal of the tape longitudinally of the slot.

3. A measuring means as claimed in claim 1 or 2, in which said handle is slidably disposed within a bore in the reel, said bore being counterbored to accommodate an enlarged-diameter inner portion of said handle whereby the handle may be caused to adopt operative and inoperative positions, the casing at one side having a central aperture to allow said handle to extend into the operative position and to be turned when so extended. 105 110

4. A measuring instrument arranged and constructed and adapted to operate substantially as herein described with reference to and as illustrated in the accompanying drawing. 115 120

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682.714 COMPLETE SPECIFICATION

1 SHEET

*This drawing is a reproduction of
the Original on a reduced scale.*

FIG.1

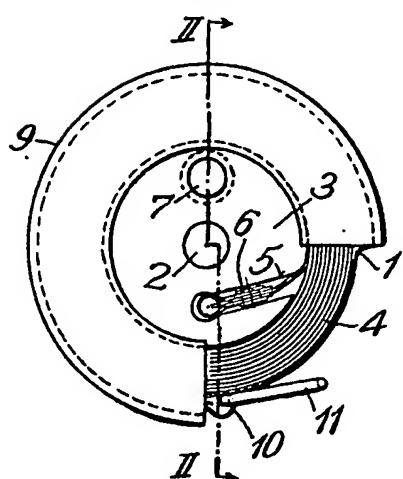


FIG.2

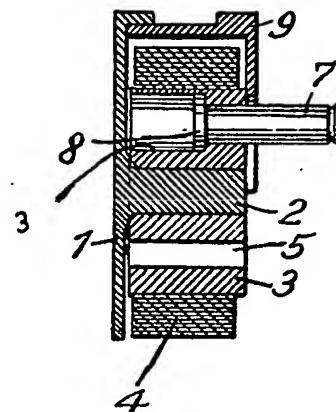


FIG.3

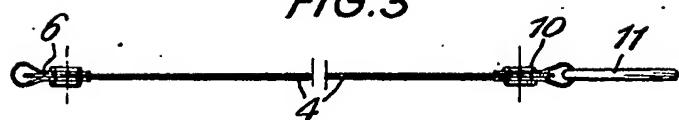


FIG.4

